WHAT IS CLAIMED IS:

1. An isolated nucleic acid encoding a vertebrate translation initiation factor 4AIII (eIF-4AIII) having an amino acid sequence substantially homologous to that of SEQ ID NO:2.

2. The isolated nucleic acid of Claim 1 wherein the amino acid sequence is SEQ ID NO:2 or SEQ ID NO:2 with a conservative amino acid substitution.

3. The isolated nucleic acid of Claim 2 wherein the nucleic acid contains the coding sequence of SEQ ID NO:1.

4. The isolated nucleic acid of Claim 1 further comprising an heterologous nucleotide sequence.

5. The isolated nucleic acid of Claim 4 wherein the heterologous nucleotide sequence encodes a fusion protein or fusion peptide.

6. The isolated nucleic acid of Claim 1 operatively linked to an expression control sequence.

7. A unicellular host transformed or transfected with the nucleic acid of Claim 6.

8. A method of expressing the eIF-4AIII comprising culturing the unicellular host of Claim 7 in an appropriate cell culture medium under conditions that provide for expression of the protein by the cell.

9. The method of Claim 8 further comprising the step of purifying the eIF-4AIII.

10. The purified form of the eIF-4AIII obtained by the method of Claim 9.

11. An isolated nucleic acid containing 15 or more nucleotides that hybridizes to SEQ ID NO:1 under standard hybridization conditions.

12. The isolated nucleic acid of Claim 11 that hybridizes to nucleotides 1 to 90 of the coding region of SEQ ID NO:1 under standard hybridization conditions.

13. An isolated vertebrate translation initiation factor 4AIII (eIF-4AIII) having an amino acid sequence substantially homologous to that of SEQ ID NO:2.

14. The isolated eIF-4AIII of Claim 13 having the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:2 with a conservative amino acid substitution.

15. The isolated eIF-4AIII of Claim 13 containing the amino acid sequence of SEQ ID NO:4.

16. The isolated eIF-4AIII of Claim 13 having a detectable label.

17. A proteolytic fragment of the isolated eIF-4AIII of Claim 13.

18. A chimeric protein comprising a fusion protein or peptide and the proteolytic fragment of Claim 17.

19. A chimeric protein comprising a fusion protein or peptide and an eIF-4AIII having an amino acid sequence substantially homologous to that of SEQ ID NO:2.

20. An antibody to an isolated vertebrate translation initiation factor 4AIII (eIF-4AIII) having an amino acid sequence substantially homologous to that of SEQ ID NO:2.

21. The antibody of Claim 20 that binds amino acids 1-30 of SEQ ID NO:2.

22. The antibody of Claim 21 which is a monoclonal antibody.

23. A method for identifying a potential drug that modulates the ability of the eIF-4AIII of Claim 13 to induce the transcription of epidermal markers comprising:

(a) injecting an mRNA encoding the eIF-4AIII into an animal pole of a 2-cell stage embryo in the presence of an agent;

(b) isolating the animal pole explant at the late blastula stage;

(c) culturing the animal pole explant until the midneurula stage;

(d) extracting the RNA from the animal pole explant;

(e) assaying for the transcription of an epidermal marker protein; and

(f) comparing the amount of transcription in the presence of the agent relative to in its absence; wherein an agent that enhances or diminishes said transcription relative to in its absence is identified as a potential drug that modulates the ability of the eIF-4AIII to induce the transcription of epidermal markers.

24. The method of Claim 23 wherein said assaying the transcription of the epidermal marker is performed by reverse transcriptase polymerase chain reaction.

25. The method of Claim 23 wherein the 2-cell stage embryo is a xenopus embryo.

26. The method of Claim 23 wherein the animal pole explant is dissociated for 2-6 hours and then reaggregated prior to said culturing of step (c).